2013 Governor's Conference on Postsecondary Education Trusteeship

Building a Stronger Workforce through Postsecondary Education

Kentucky Council on Postsecondary Education

What Colleges and Universities Can Learn from Workforce Data

Jay Box
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The College Completion Agenda

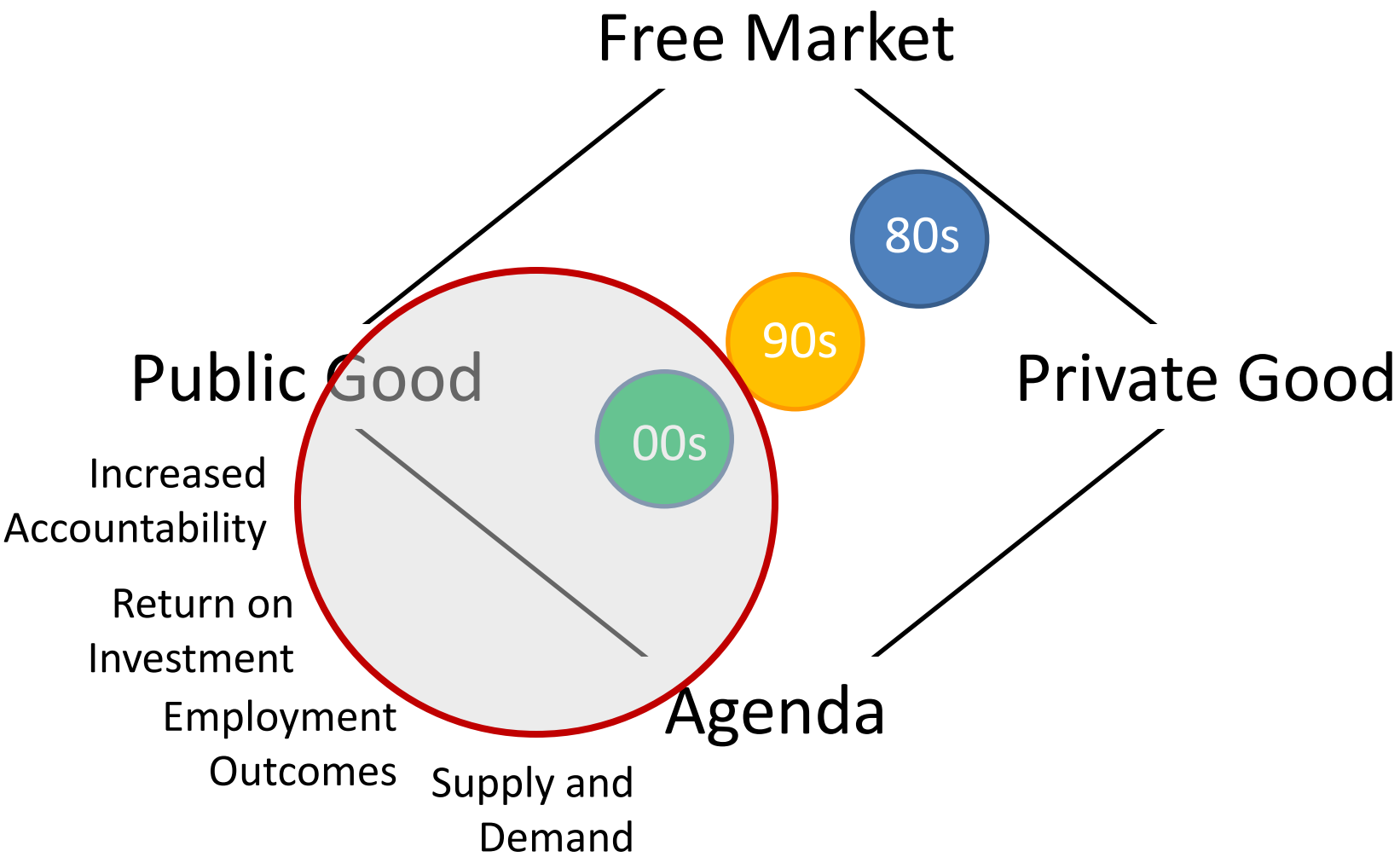
From “Education for Education’s Sake” to Return on Investment, Employment Outcomes, and Supply and Demand

Patrick J. Kelly

NCHEMS

National Center for Higher Education Management Systems

Shifting Priorities in Postsecondary Policy



Return on Investment

Calculating the Economic Value of Increasing College Credentials by 2025
United States

Start Over | Save Scenario | Print Page

Increase College Attainment | View Returns on Investment | Instructions and Definitions

Set Postsecondary Performance Goals for Year 2025

Increase College Access

Avg. Performance of Top 3 States

High School Graduation Rate	87.0%
College-Going Rate Directly from High School	75.0%
20 to 39 Year Olds Enrolled in College	2.40%

Increase Number of College Credentials

Undergraduate Credentials Awarded per 100 Students

Public Research	26.0
Public Bachelor's and Master's	24.4
Public Two-Year	42.7
Private Colleges	37.2

Change Enrollment Patterns of Additional First-Time Students

	Directly from High School	20 to 39 Year Olds
Public Research	24%	3%
Public Bachelor's and Master's	18%	5%
Public Two-Year	34%	62%
Private Sector	25%	30%
Must Equal 100%	100%	100%

2025 Enrollment patterns of additional first-time students as a result of the improvements made

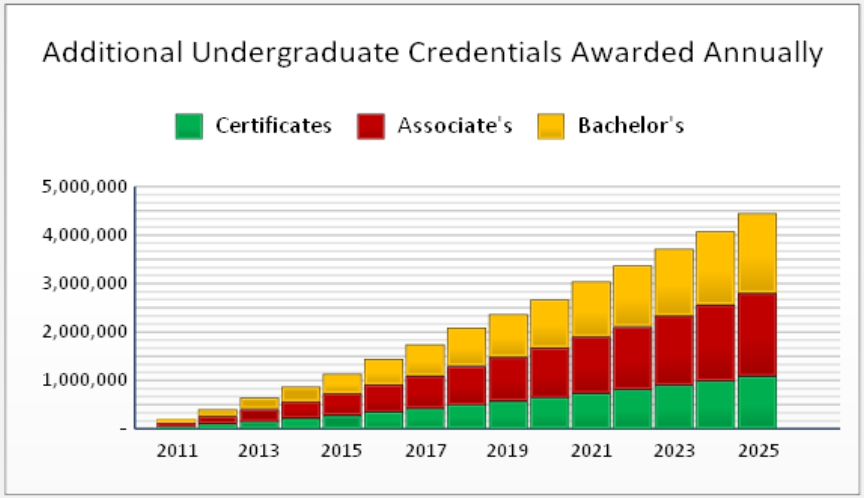
Optional: Set 2025 College Attainment Goal (%) 60.0

(Current College Attainment of 25 to 64 Year Olds is 38.3%)

Gap: Additional Degrees Needed to Meet 24,305,885

Results: Additional Undergraduate Credentials Awarded by 2025

Associate's	12,412,476	+ Bachelor's	12,002,697
= Additional Degrees	24,415,173		
Undergraduate Certificates	7,851,437		
Total Additional Undergraduate Credentials	32,266,610		



Note: The default positions reflect current rates and values. The results in 2025 assume linear progress toward goals.

Created by NCHEMS and CLASP

Calculating the Economic Value of Increasing College Credentials by 2025
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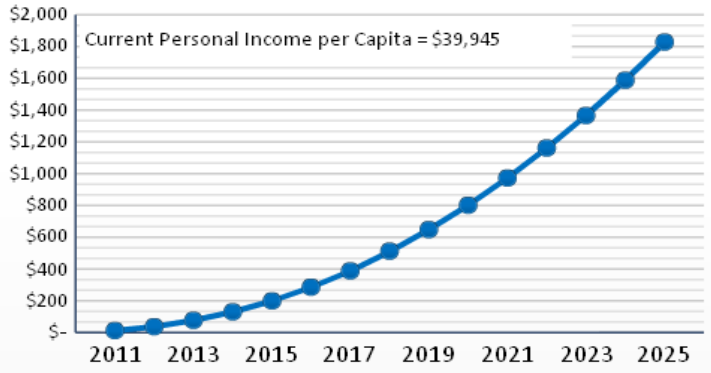
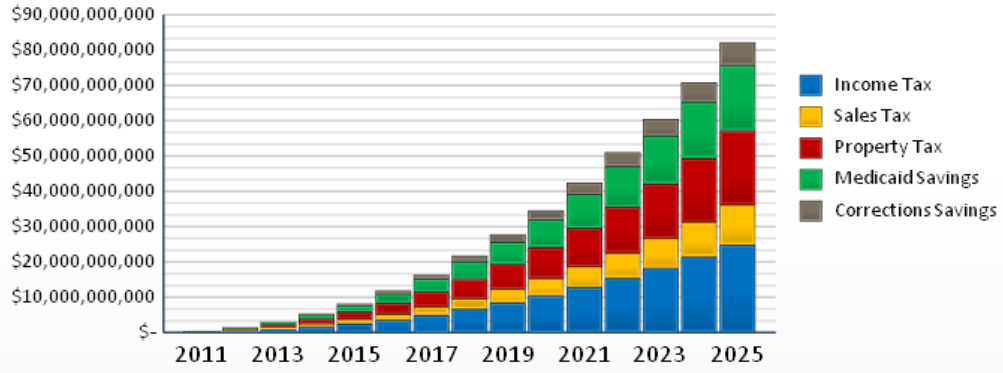
Change in Personal Income per Capita

In Current $



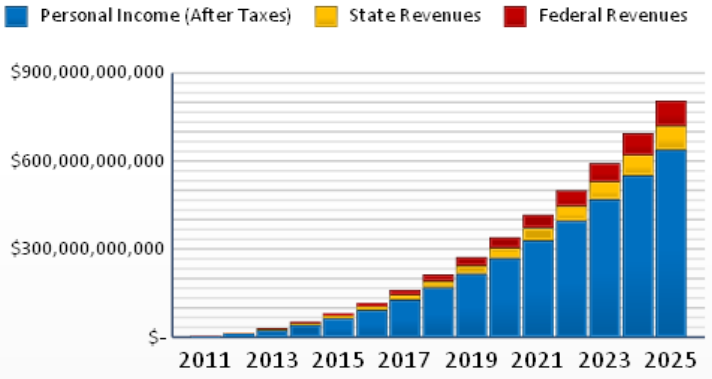
Additional State Revenues Generated

In Current $



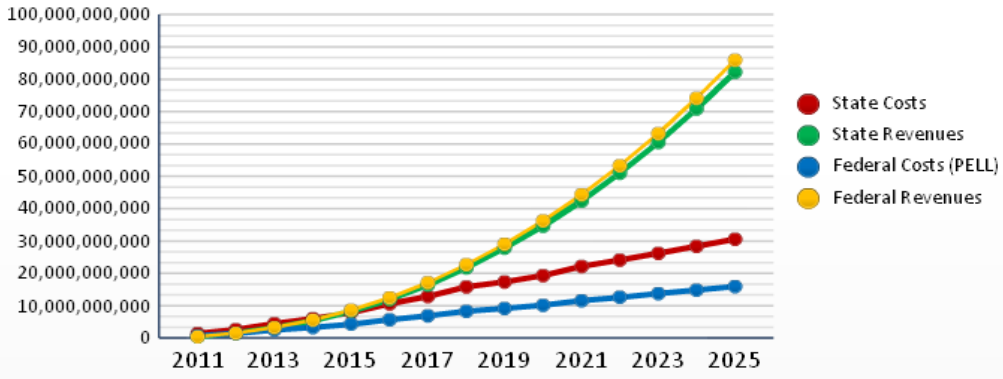
Additional Revenues Generated

In Current $



State and Federal Costs vs Revenues Generated

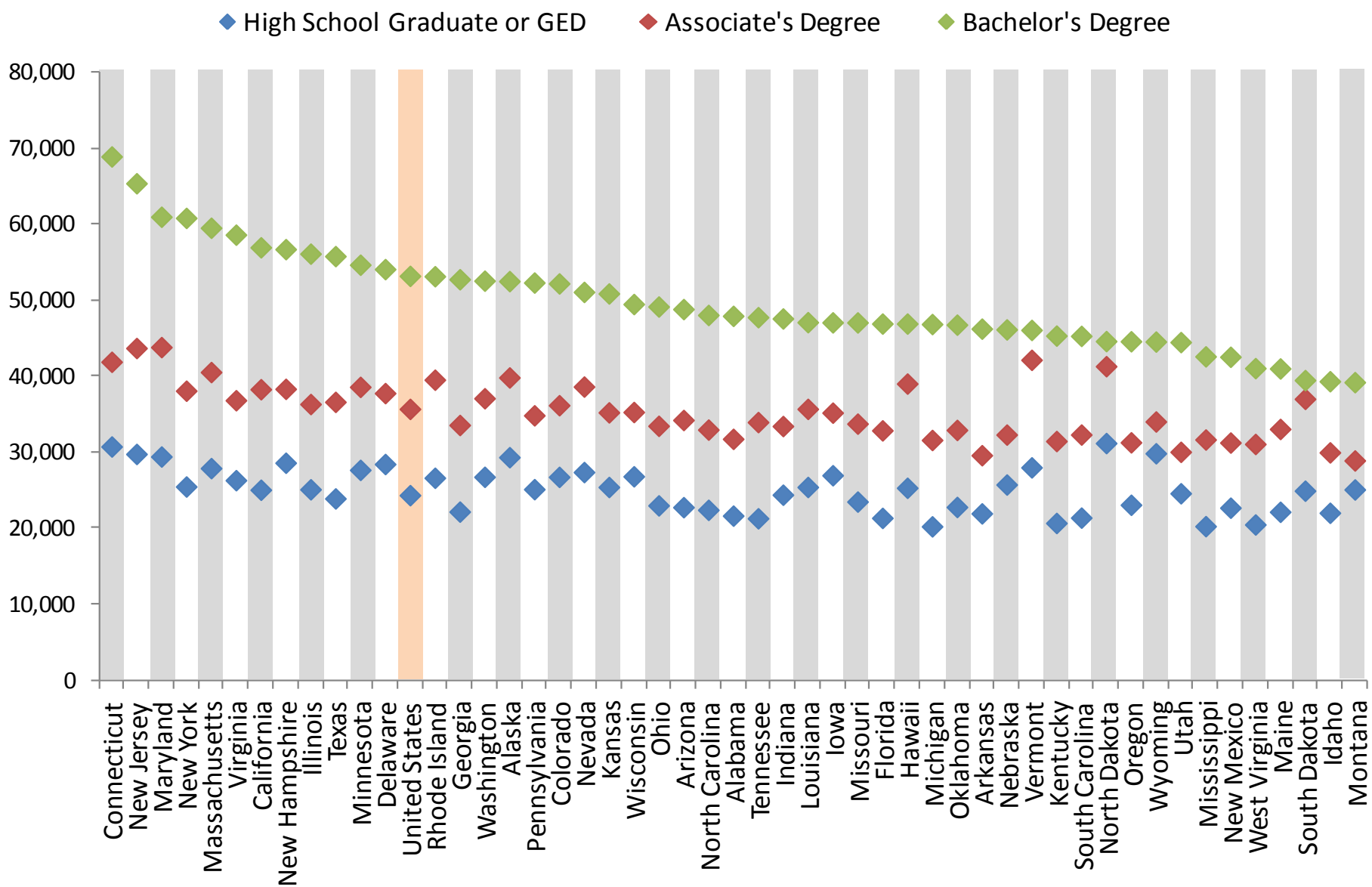
In Current $



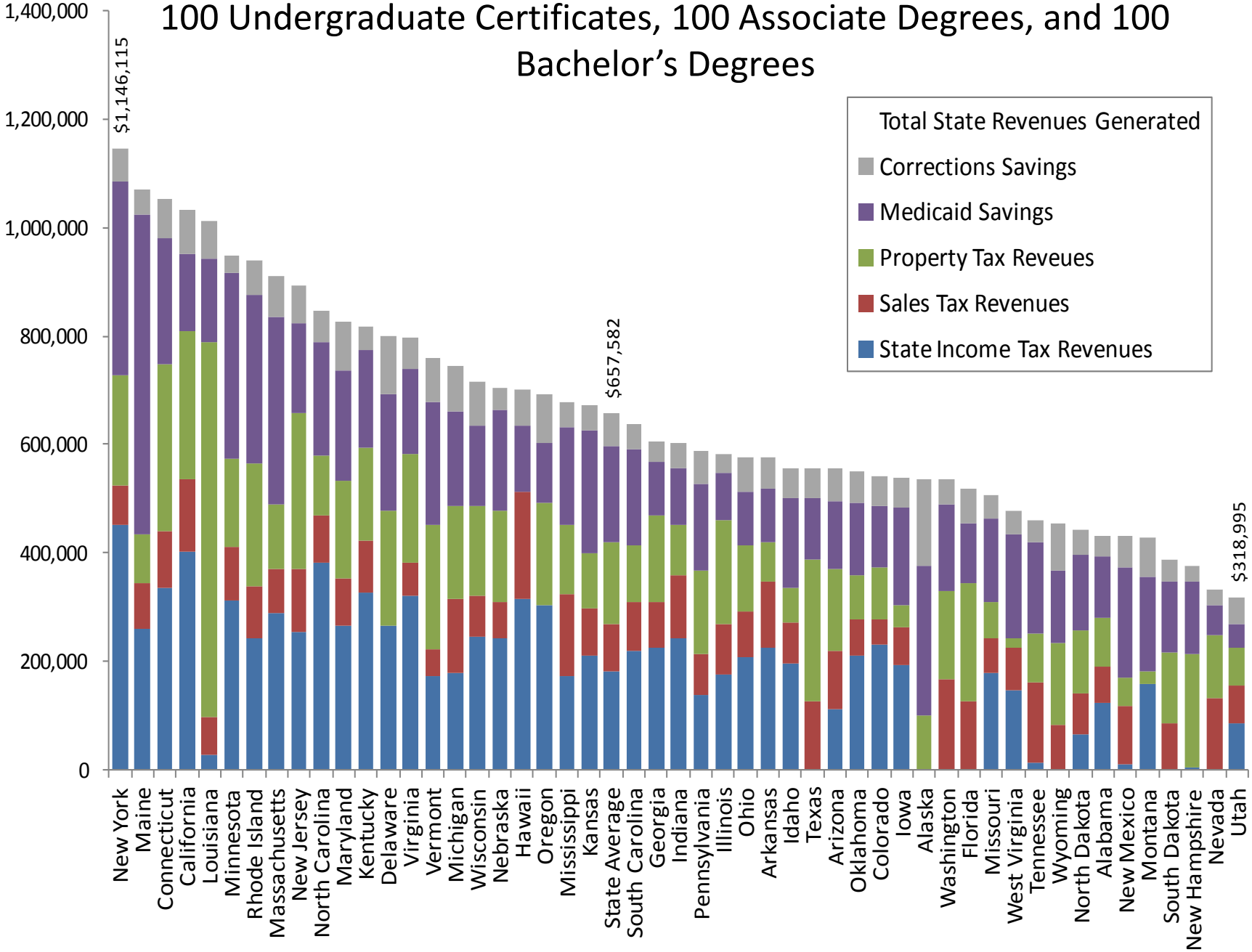
Note: The default positions reflect current rates and values. The results in 2025 assume linear progress toward goals.

Created by NCHEMS and CLASP

Median Annual Wage Earnings by Level of Education Attained 25 to 64 Year Olds (2010)



State Returns by Source if Each State Produced an Additional 100 Undergraduate Certificates, 100 Associate Degrees, and 100 Bachelor's Degrees



The Personal and State Returns if Each State Produced an Additional 100 Undergraduate Certificates, 100 Associate Degrees, and 100 Bachelor's Degrees

Employment Outcomes

Environmental Pressures

- Federal Gainful Employment
- Effective utilization of federal SLDS grants
- College attainment/completion goals – state retention of graduates and economic returns
- Increased focus on “credentials of value” – the attainment of credentials of less than two-years in length (primarily) that yield living/competitive wages
- Meeting employment demand in key areas – e.g. health, education, STEM, trades
- Increasing need for employment outcomes data to make the case for continued investment (state and federal policymaking environments)

The Data are Simple

Institution Records

- Completions
- Level of Award (Certificate, Associates, Bachelor's Masters, Doctorate, Professional)
- CIP Code of Award – Field of Study
- Origin of Student
- Continued Enrollment

Data Available by Term

Link SSN

Employment/Wage Records

- Employed – record in the database (excludes self employed, military, and employed out-of-state)
- Earnings
- Industry of Employment
- Region of Employment

Data Available Quarterly

Major Questions Answered

- What percentage of the graduates are employed in-state – by level and type of award?
- Are the graduates employed in the region in which they graduate?
- What are their quarterly earnings?
- What industries are the employed in? (only relevant in a few fields)
- What percentage continue to enroll/persist in postsecondary education?

Most Effective Uses of the Data

- **State brain drain**. Is the state retaining the graduates it produces? How is it changing over time? (the impact on the degree and attainment goals of the state).

- **State-level supply and demand**. What is the employment status of graduates in key areas of demand for the state? E.g. health and STEM fields, certain trades. Don't fall into the trap of overly detailed program-to-occupation supply and demand studies.

- **Regional supply and demand**. Are institutions producing graduates that meet local employer needs? What are the employment status and wages of the graduates they produce?

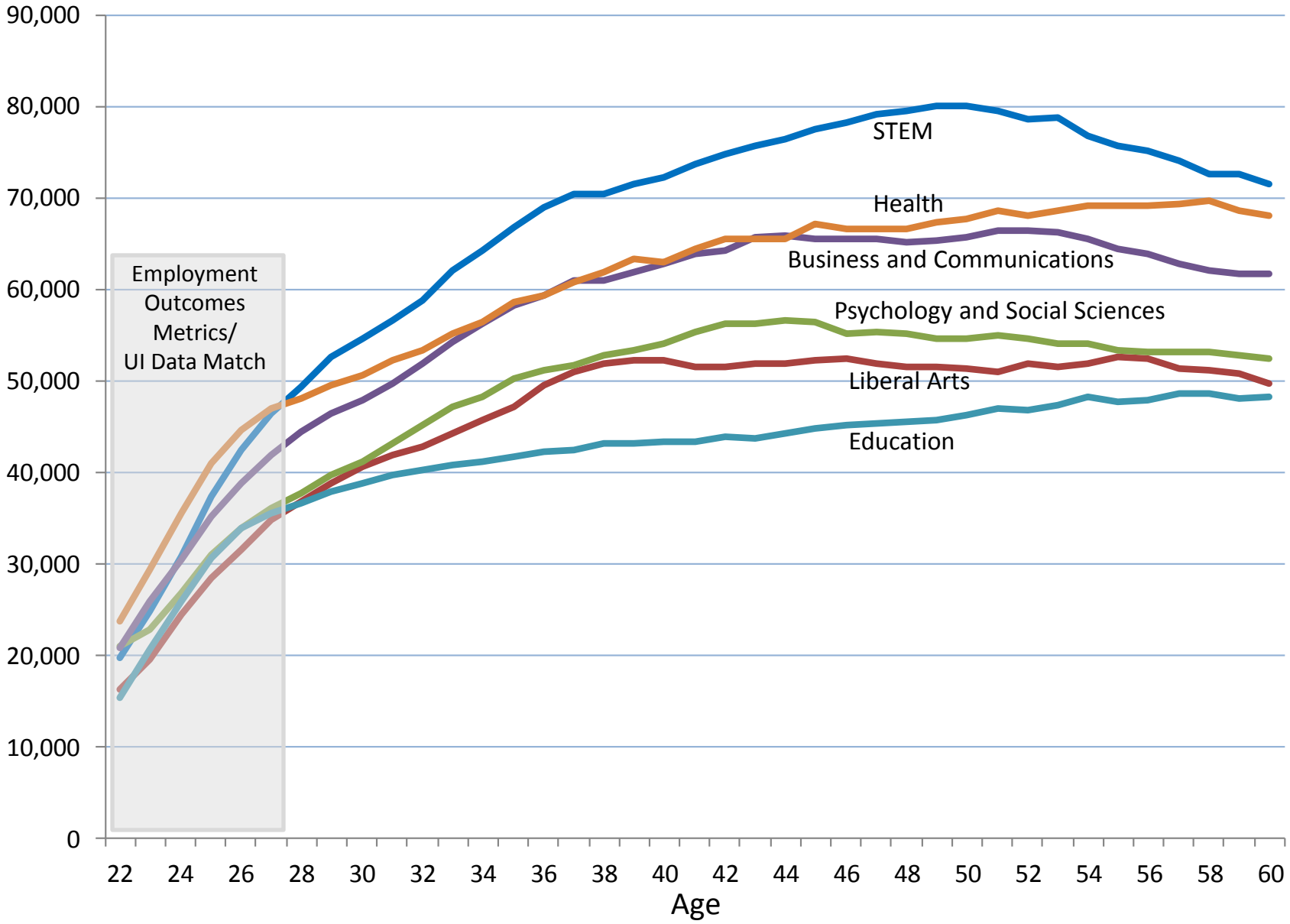
- **Information for students and families**. What programs provide the highest wages in the short-run? What programs are more likely to require continued education upon completion?

Institutional Accountability (Difficult)

- Small numbers of graduates for many programs
- It is very difficult to calculate the “value added” by institution – i.e. the likely employment and wages of students had they not completed their college credentials
- The state economy treats graduates from some institutions better than graduates from others (with the same credentials) – the “prestige” factor
- Institutions serving large numbers of place-bound students are victims of their local economy (e.g. a part of the state that has low wages relative to other parts of the state)
- The difficult balance between directing students into programs with competitive wages and providing student choice

Median Annual Wages by General Field of Study and Age (United States)

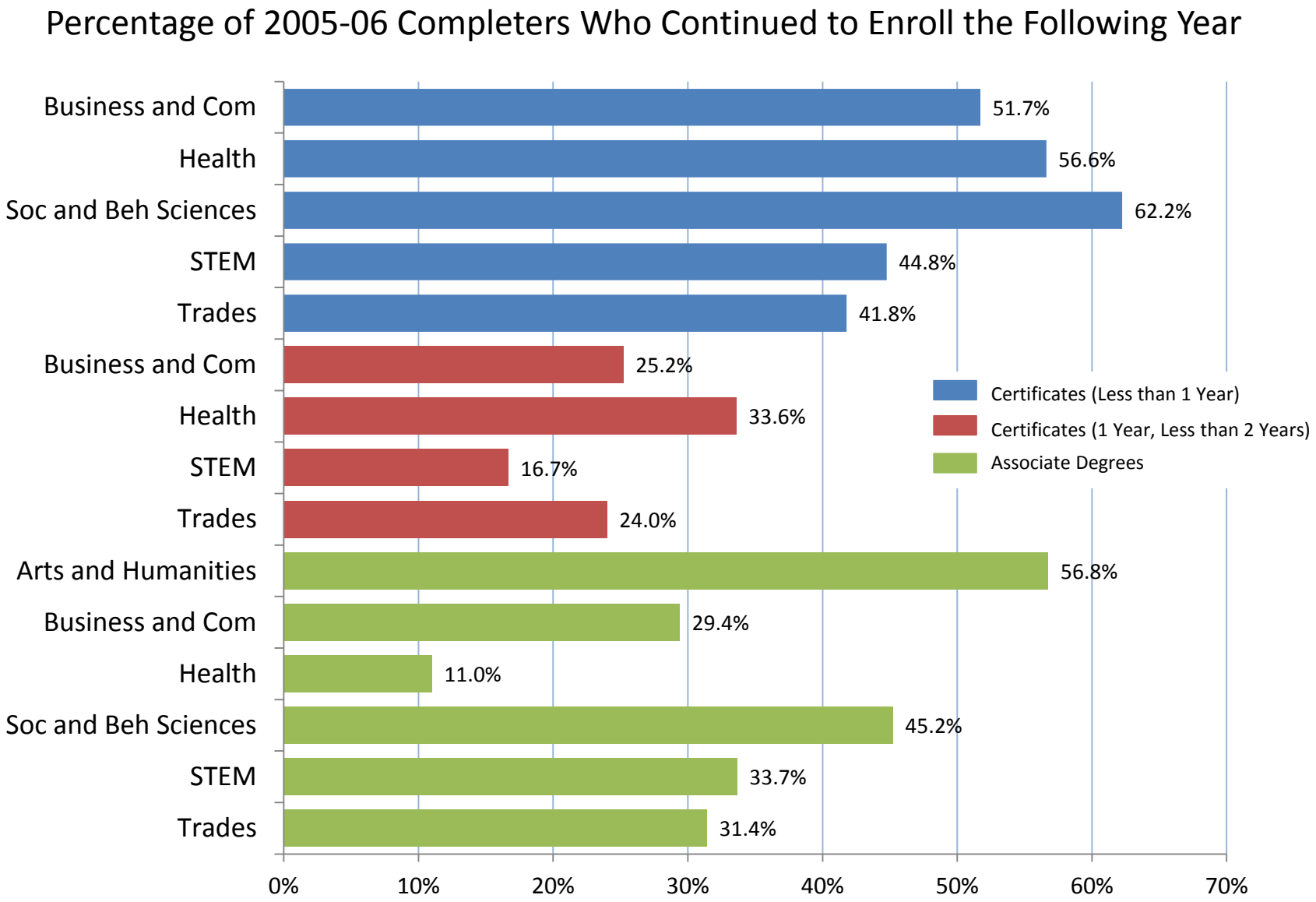
(Includes Only Bachelor's Degree Holders, Not Residents Who Earned Graduate/ Professional Degrees)



Source: U.S. Census Bureau, 2010 American Community Survey (Public Use Microdata Sample)

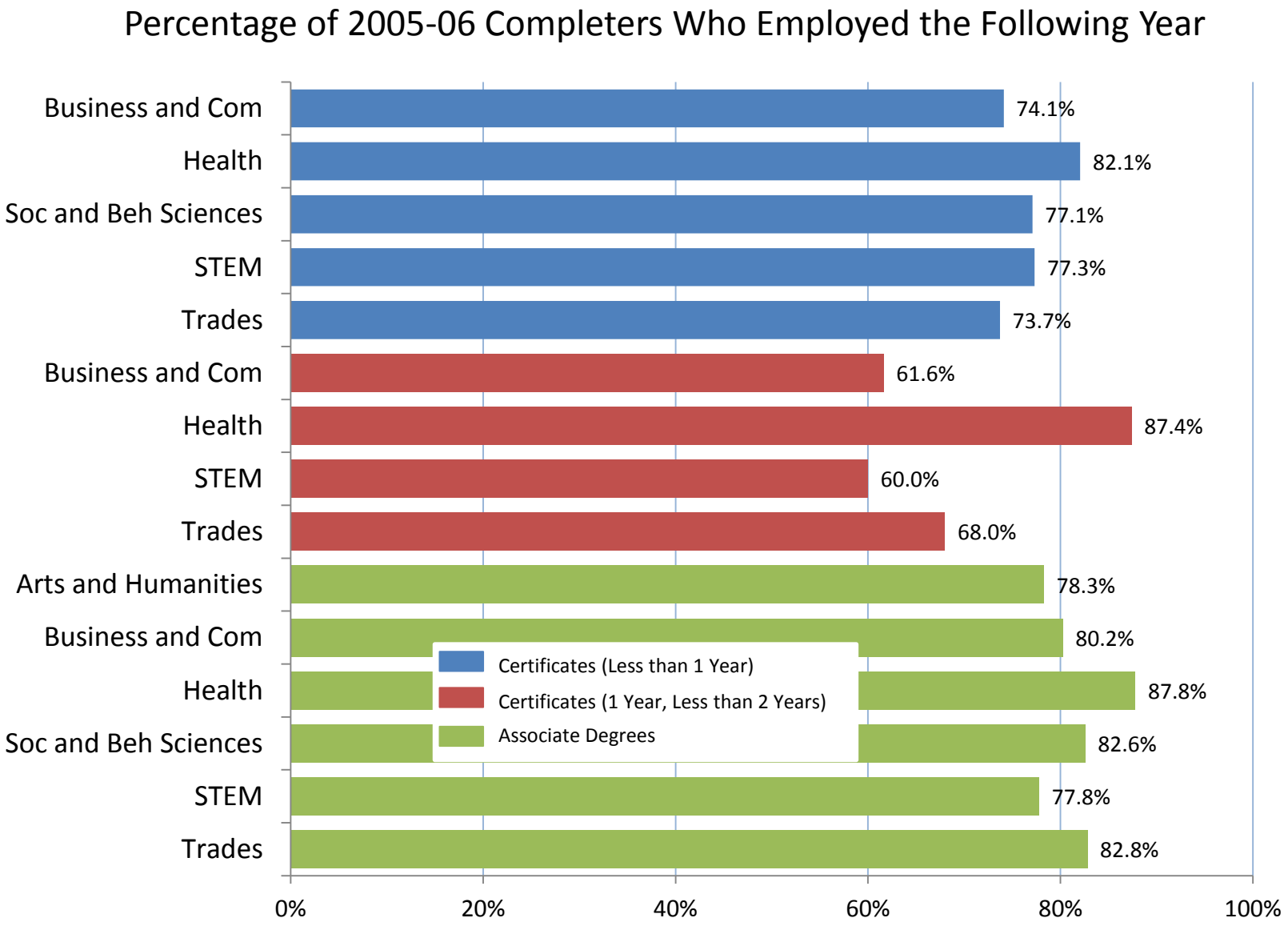
How Can We Tell a Story with the Data?

Many Students Re-Enrolled Following Completion



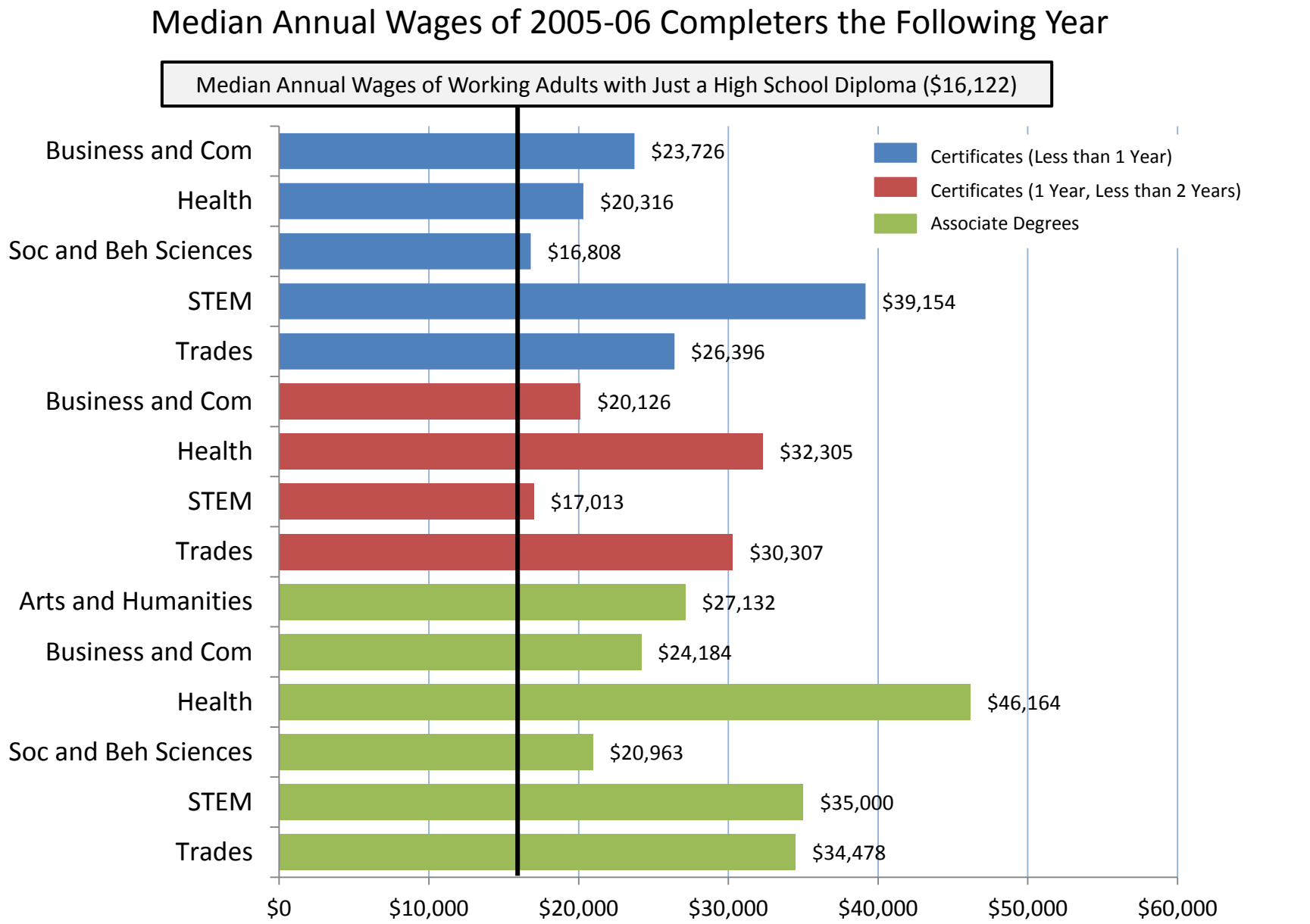
NCHEMS

Of Those Who Didn't Re-Enroll, How Many are Employed in State?



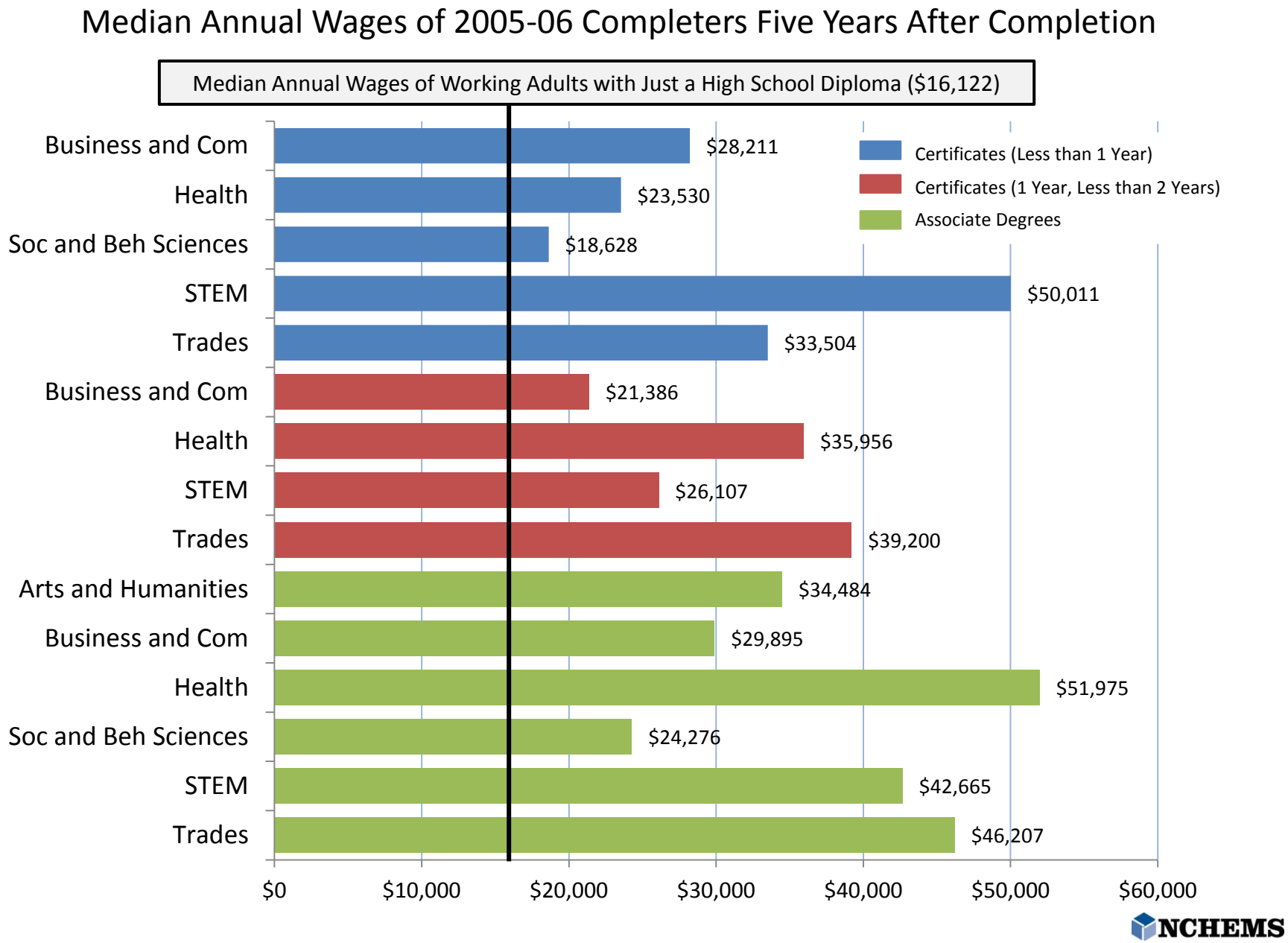
NCHEMS

What are Their Median Annual Wages One Year After Completion?



NCHEMS

What are Their Median Annual Wages Five Years After Completion?



NCHEMS

Making the Case for the Graduating Cohort of 2005-06

Total Additional Earnings Over Last Five Years = **$438,756,988**

Additional State Tax Revenues Generated = **$68,536,366**

Income Tax	$37,818,493
Property Tax	$8,471,451
Sales Tax	$22,246,422

Savings to the State = **$25,707,910**

Medicaid	$20,078,941
Corrections	$5,628,969

Total Revenues and Savings to the State = **$94,244,276**

Supply and Demand

The Kentucky Center
for Education and Workforce Statistics

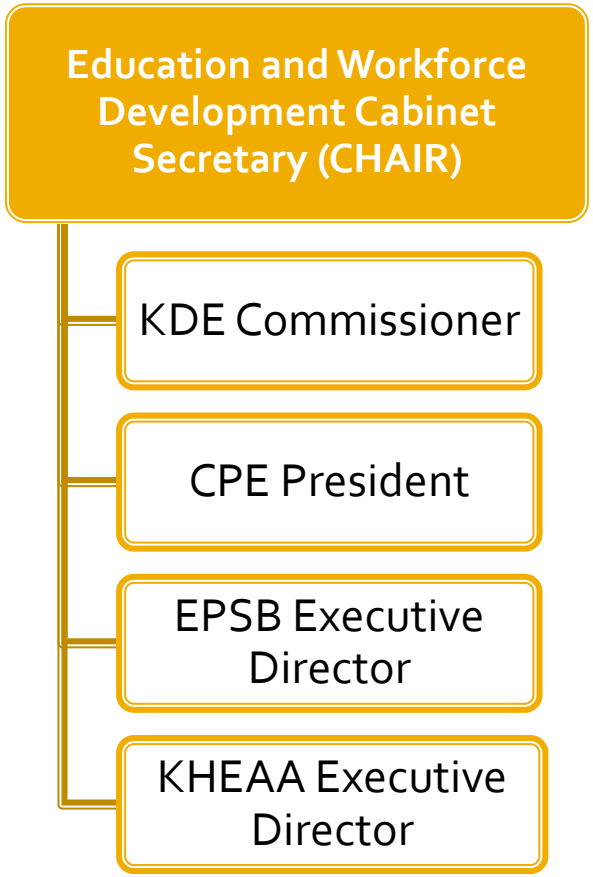
Employment Outcomes

Trusteeship Conference
September 13, 2013

KCEWS

- Official state office housed in the Education and Workforce Development Cabinet
- Funded through federal grants and a recurring state budget that started 7/1/2012
- Created in December 2012 by Executive Order
- Ratified into law in 2013 legislative session
- Builds upon the work of the Kentucky P-20 Data Collaborative

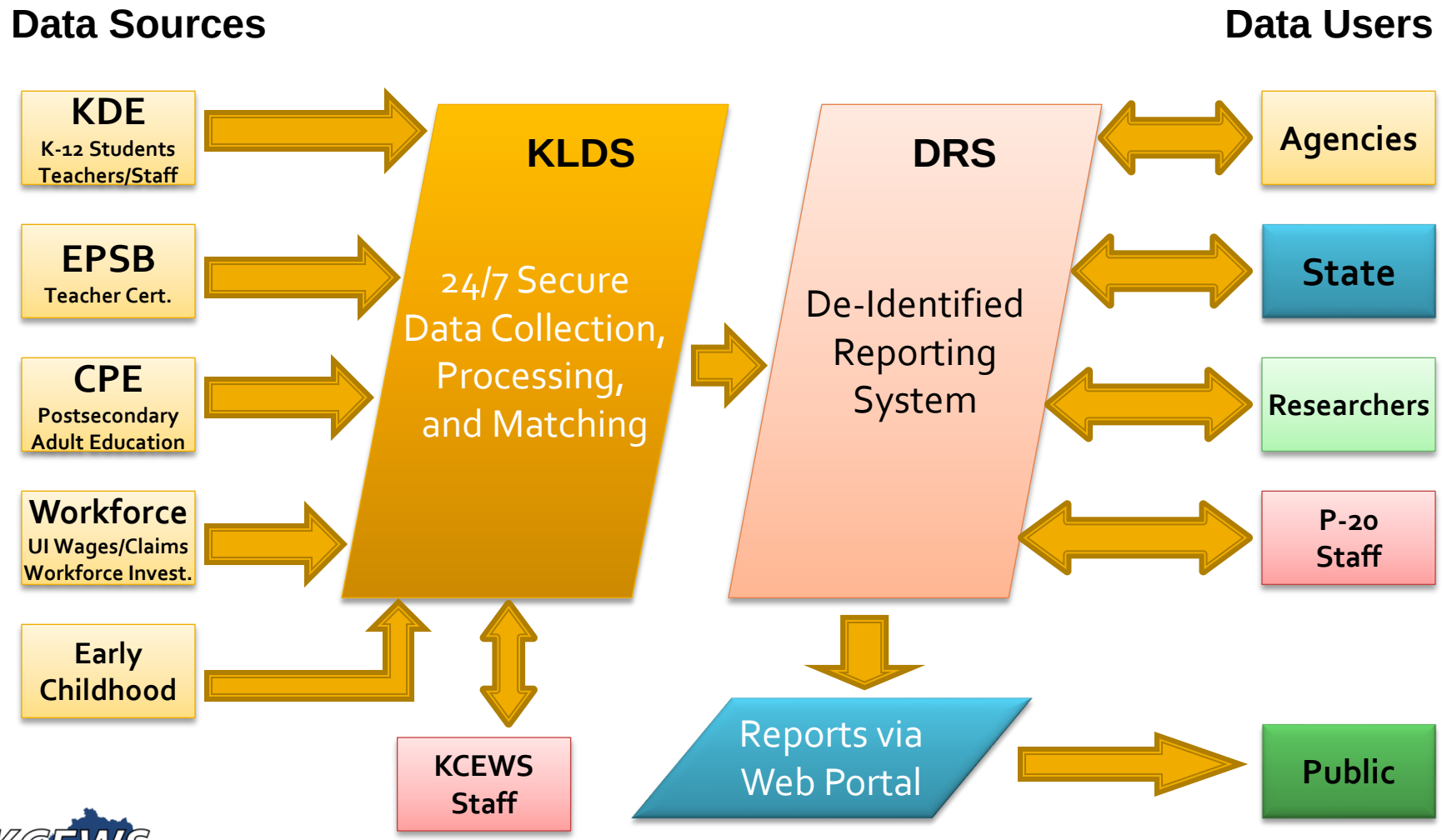
KCEWS Board



KCEWS

- Independent source of data that links early childhood, k-12, teacher certification, postsecondary, adult education workforce and other data to inform state policies and practices.
- Maintain the Kentucky Longitudinal Data System
- Charged with developing metrics to evaluate education and workforce programs statewide
- Continues the work of the P-20 Data Collaborative

How does it work?



Data Scope

Current

- K-12 Student
- K-12 Teachers & Staff
- Public & Independent Postsecondary Student
- Teacher/Educator Certification
- Teacher Prep Programs
- In-State Employment and Earnings (UI)
- Out-of-State Postsecondary

Near Future

- Financial Aid
- Head Start
- Workforce Investment
- Proprietary Colleges
- Children & Family Services
- Apprenticeships
- Out-of-State and Military Employment

Workforce and Employment Data

Employment data are available from the UI wage reports made by employers which includes about 90% of all people employed in Kentucky.

Limitations of the data:

1. Only includes people employed in-state (adding out-of-state Fall '13)
2. Does not include federal or military employees (adding federal Fall '13)
3. Only provides quarterly wage data by industry and employer location – not occupations and not *where* they work but where their employer's central office exists.
4. Geography of employment has a number of caveats.

More detailed employment data are available from K-12 teachers and staff and adult education staff and those who are making unemployment insurance claims.

Reports

Employment and earnings by:

- Credential level
- Major/Program
- Industry

Custom reports sent to each public and AIKCU institution.


SPECIAL REPORT

JANUARY 2013

QUICK FACTS

Employment and Earnings of Kentucky's College Graduates: A Preliminary Report

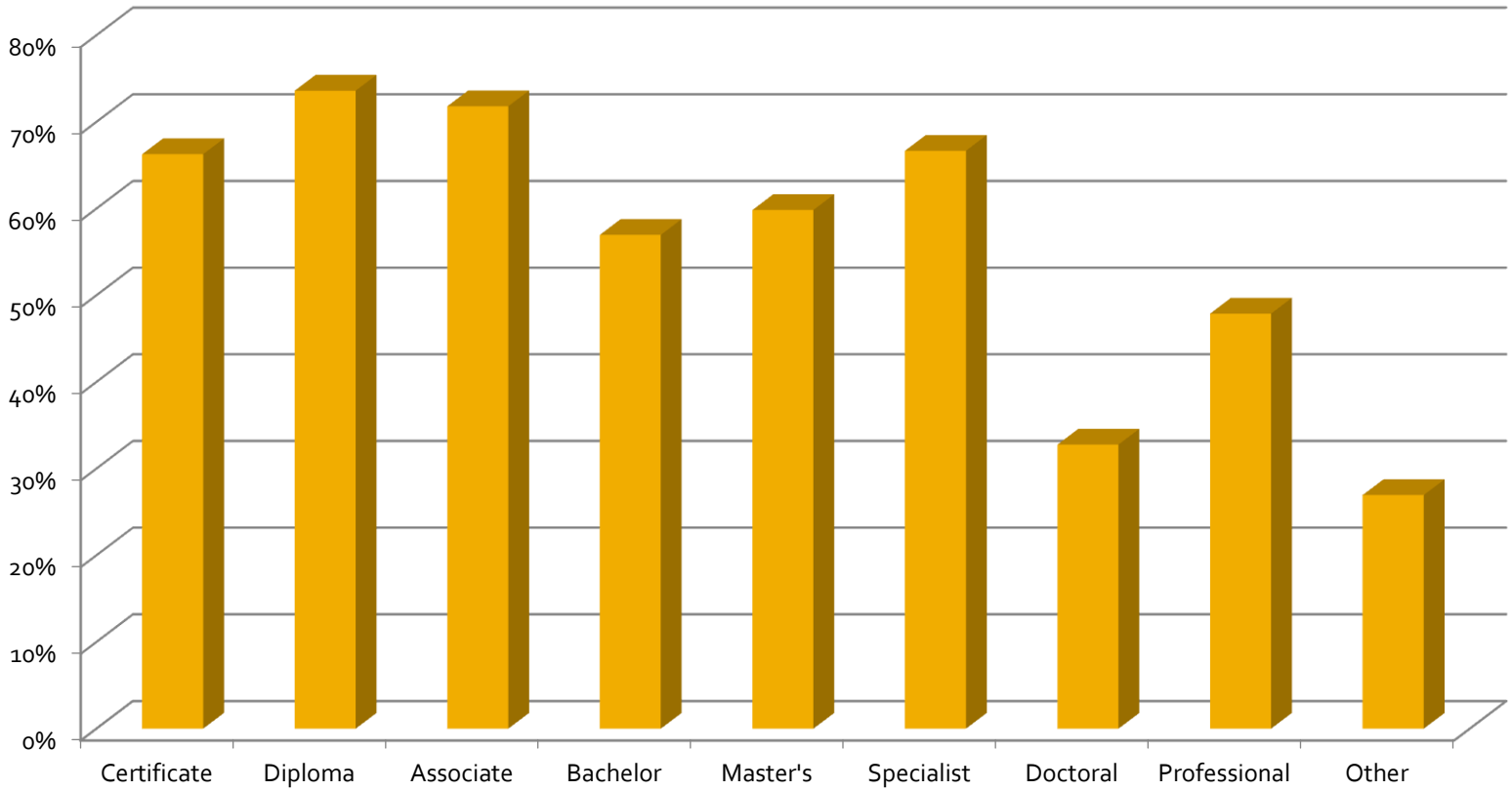
Charles McGrew

Methodology and Limitations

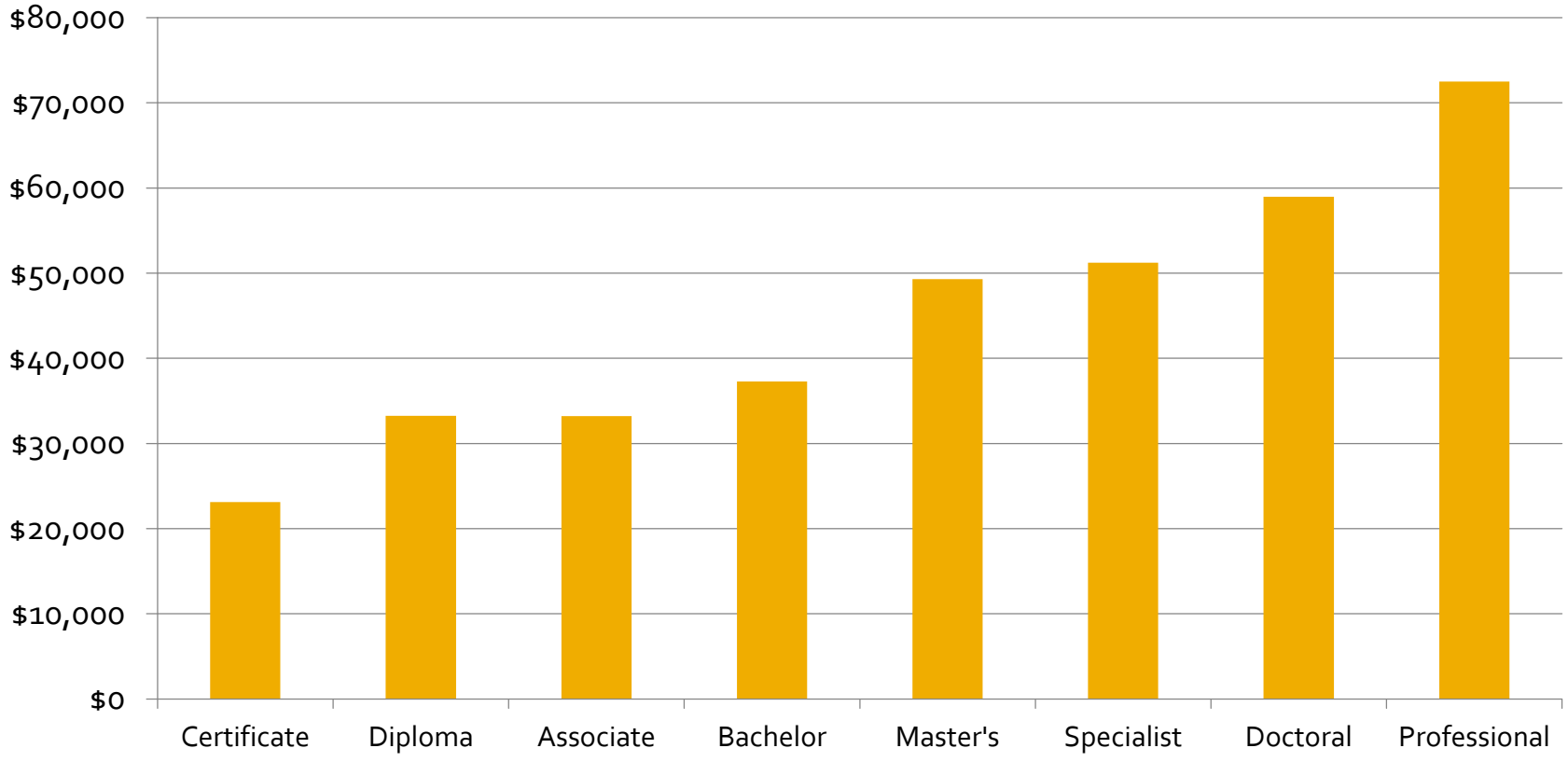
KCEWS

KENTUCKY CENTER FOR

Percentage of 2005-06 Postsecondary Graduates Working In-State* in 2010-11

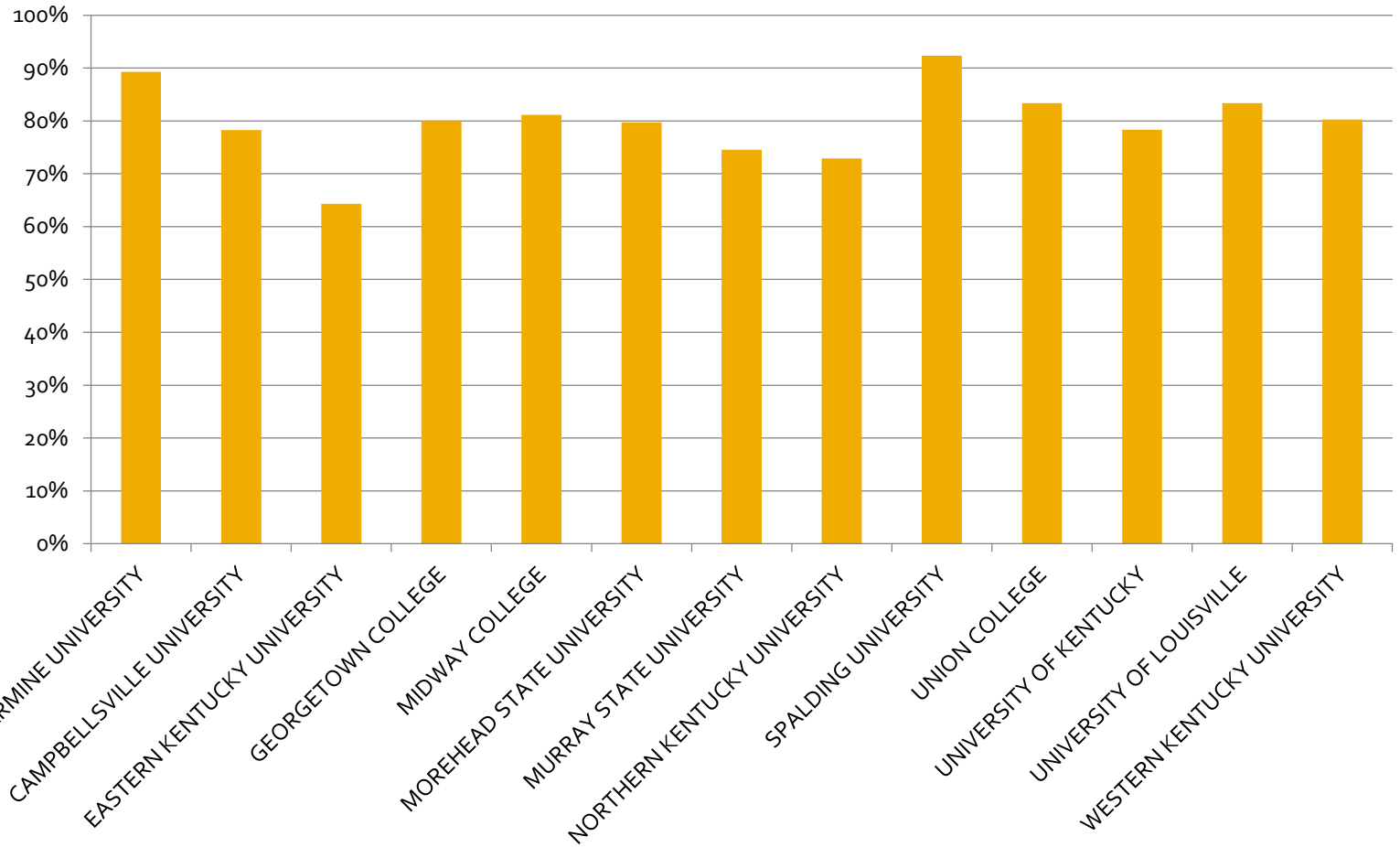


Median Wages by Credential Level in 2010-11

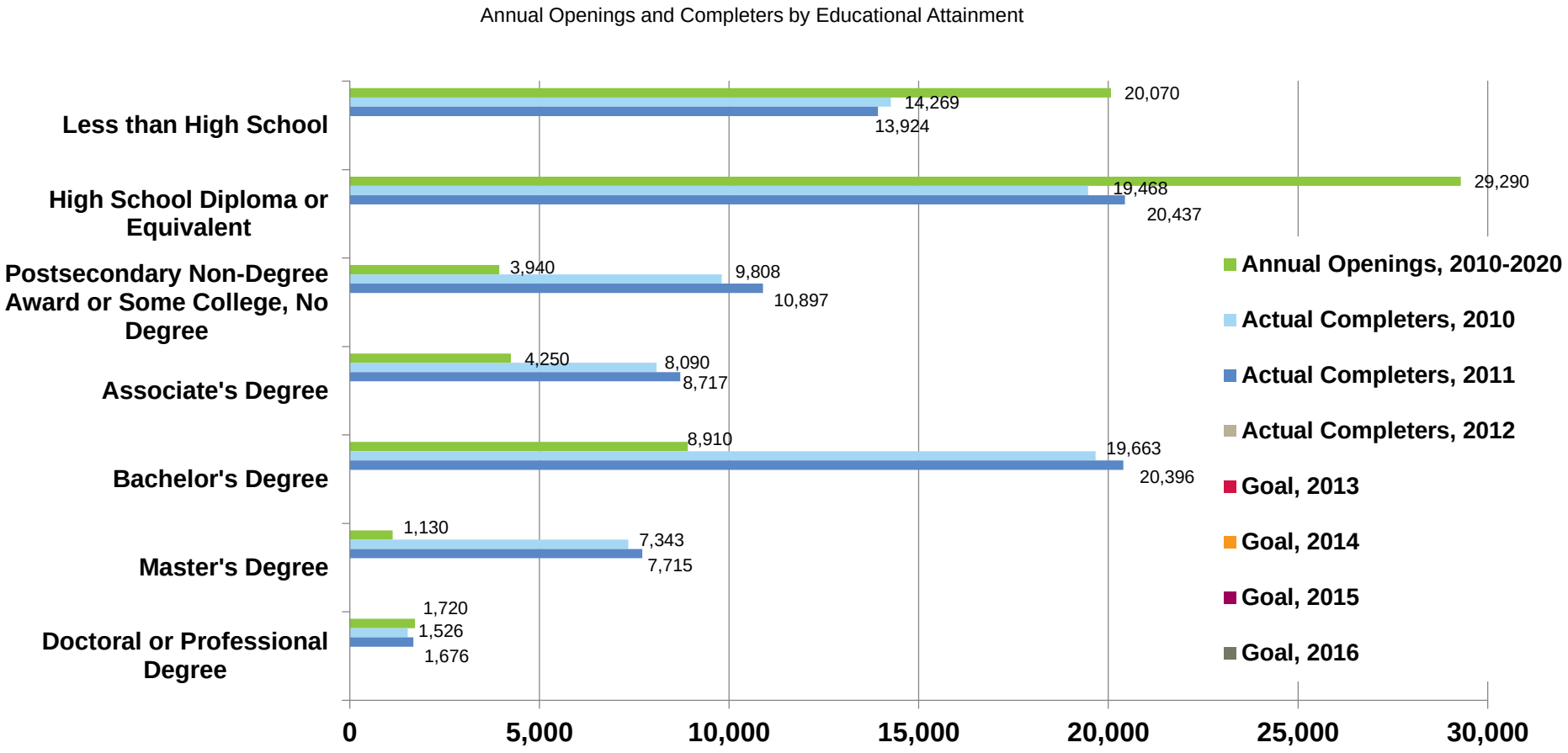


First Year Teacher Retention after 3 Years

2007-2008 Graduates from Kentucky Institutions by Preparation Program



Education and Workforce Alignment
Demand and Supply by Education Level



Upcoming

Reports

- 2013 high school feedback report with college success
- College and university feedback reports
- Adult Education feedback reports
- Teacher preparation feedback reports
- Additional employment outcomes and economic alignment reports

Data

- KHEAA will bring some private high school, state financial aid,and access to NSC for out-of-state college enrollment data
- WIA Training Providers will add most proprietary colleges to calculate completions and employment rates for graduates
- Additional out-of-state and military employment
- Workforce programs and apprenticeships
- Industry certifications

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